

## Asian longhorned beetle

### Human Health Risk

Ecological Risk L

Socioeconomic Risk L

The Asian longhorn beetle is an insect indigenous to China. The beetle has inadvertently been brought into the United States via Chinese imports shipped in solid wood packing material. Since its discovery in 1996, the beetle has been detected in warehouses in 14 states, including three in New Jersey. As with other wood boring pests, the beetle is a serious threat to many species of hardwood trees, especially maples. It has no natural enemies in the western hemisphere, and current treatment efforts focus on the destruction of infected trees.

### What's at risk?

If introduced into New Jersey's forest ecosystems, potentially all the state's hardwood forests are at risk of damage from this beetle. There are approximately 1,991,000 acres of forested land in New Jersey.

### What are the ecological impacts in New Jersey?

Beetles have been found in warehouses in Cream Ridge, Linden, and New Brunswick. Currently, there is no known forest infestation. If introduced into New Jersey ecosystems, the insects can be spread by movement of infested wood (firewood, lumber) and by adult beetles flying to nearby trees. The beetle affects terrestrial ecosystems by infesting and killing many species of hardwood trees. Destruction of trees could reduce the abundance of native species, increasing the proportion of invasive exotics such as Japanese barberry. Extensive forest loss can result in changes in forest function and lead to secondary impacts (e.g., increased erosion).

### What are the socioeconomic impacts in New Jersey?

Although the potential impact could be enormous, the slow natural spread of the beetle, vigorous efforts to limit entry of new insects into the U.S., and immediate eradication of infestations when found should keep socioeconomic costs minimal for the foreseeable future.

### What's being done?

The New Jersey Department of Agriculture maintains a Pest Detection Program and the New Jersey Forest Service (in DEP) has an Insect and Disease Management Program. In addition, the U.S. Department of Agriculture maintains forest monitoring programs, requires special treatment of wooden crates shipped to the United States, and quarantines affected areas. Although it is possible that the beetle has escaped detection in New Jersey ecosystems, the insects appear to spread relatively slowly. It is likely that federal and state surveillance efforts would detect an infestation before it reached widespread, catastrophic proportions.